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Industrial Vacuums



# Flammable Liquid Vacuum

55 Gallon – Pneumatic Powered



### Configurations

Part	Description
340.87355.01	Flammable liquid recovery vacuum, 55 Gal, single venturi

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**CAUTION – See pages 4-5 for critical safety message**

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## General Overview

- Meets GSA (General Service Administration) specification for pneumatic vacuum cleaner for the recovery of flammable liquids.
- Specifically designed for safe recovery of jet fuel and hazardous/flammable liquids.
- Air operated vacuum creates high air flow and high static lift for recovering large amounts of liquid debris quickly and safely.

## Key Features

- Exceptionally high static lift and high air flow.
- Picks up 45 gallons in under 60 seconds.
- Unit is air-operated with no moving parts providing high reliability and simple maintenance.
- Heavy duty, double lined, electrostatically applied painted tank.
- Muffler reduces noise to not exceed 80 dba.
- Includes float-ball and cage for automatic shut off when full for wet applications.
- Heavy duty all-steel dolly cart with 5" conductive wheels for easy transport.
- Explosion-proof tool kit with 14" floor squeegee tool standard
- Special neoprene 25' x 1-1/2" grounded vacuum hose with Nitrile core.
- Pressure relief valve.
- Dump valve for quick evacuation of waste material.
- Intake hose closure.
- Locking lid latches.

## Specifications

- Tank Size: 55 Gallon 16 gauge, Double Rib, HD Powder Coat
  - Wet Capacity: 45 gallons (170 liters)
  - Dry Capacity: 7.16 cu.ft. (.2 meters)
- Waterlift: 180 Inches
- Air Flow: 182 cfm
- Input Air Requirement: 100psi @ 46cfm
- Air Line: 1/2"
- Weight: 181 lbs.

## Operating Instructions

### ***Inspection***

Carefully unpack and inspect your machine for shipping damage. Each unit is tested and thoroughly inspected before shipment and any damage is the responsibility of the delivering carrier who should be notified. Read all instructions carefully before operating.

### ***Special Warning***

Air operated equipment can generate static electricity during use. Static dissipating arcing can be generated and occur if equipment and accessories are not grounded. See *Grounding Safety* for related information.

### ***Air Pressure and CFM Required***

For maximum performance, operate with 1/2" air pressure line, 100 PSI maximum and 46 CFM. An air pressure control valve can be regulated to operate with lower pressure and CFM when maximum is not required.

### ***Maintenance and Usage***

Air supplied to vacuum must be clean and dry to avoid contamination and to maintain optimum performance.

Always shut off main air supply and open air valve at vacuum to relieve pressure before disconnecting air pressure line.

## Assembly Procedure

1. Assemble float ball/water shut off assembly to lid.
  - a. Carefully turn lid assembly over without crushing cover or plumbing.
  - b. Take float ball assembly by the top end (end with rubber seal and place it over the holes centered on the bottom of the lid.
  - c. Align the two screw holes on the lid. Insert both screws and start by hand, then tighten with screw driver.
2. Set the drum onto the flammable liquid dolly. Tighten the drum lock brackets (on the dolly) to the bottom rim of the drum.
3. Turn lid assembly over and set into position on drum.

**Note:** This lid is grounded to the drum by a ground strap that crosses over the rubber seal to the outer rim while contacting the drum.
4. Lay out the nitrile hose assembly and choose attachment for the job: a) 24" crevice tool or, b) the explosion proof wand with the 1-1/2" metal coupling for the squeegee attachment.
5. Place the aluminum coupler (already attached to the grounded nitrile hose assembly) into the intake port on the top front of the lid assembly and tighten the thumb screw.
6. Grounding test – Test the Ohm's from the tip of the squeegee to the dolly caster. Less than 25.0 Ohm's is acceptable. However, normal readings will be closer to .004 Ohm's with the least amount of resistance. If all measurements are good, the vacuum is ready to use.

## Flammable Liquid Cleanup Procedure

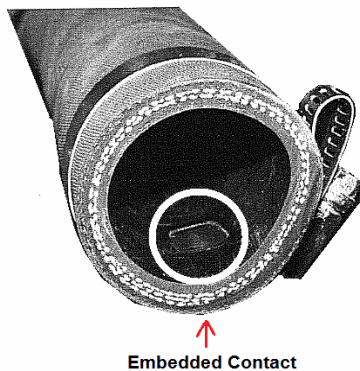
1. Drum is equipped with a 2" stainless steel ball valve assembly. Drain liquid into proper container/dispenser as necessary.
2. Spray down inside of drum and float ball assembly with a water hose. Also recommend flushing hose thoroughly and spraying off the attachments which were used, including the squeegee assembly.
3. Drain rinse water from drum and dispose of in same manner.
4. Always go to OSHA.GOV or EPA.GOV for questions on dumping toxic liquids.

## Grounding Safety

### ***Conductivity and Conductive Hose***

The explosion proof rating of this vacuum relies on positive grounding to suppress static discharge. ***Critical to positive grounding is to assemble hose and tools such that continuity is preserved.***

The vacuum hose is conductive. At each end of the hose is an embedded contact. The contacts are connected with a wire to provide conductivity from end to end.

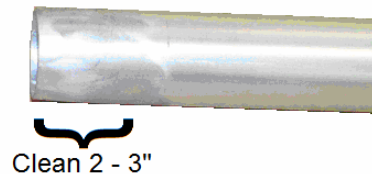


### ***Connecting Attachments***

- 1) **Place a hosse clamp** on the hose directly over the embedded contact.



- 2) **Clean 2 – 3” of the attachment tubing** to remove any coating that would insulate or impede conductivity. Use sand paper or other abrasive to clean.

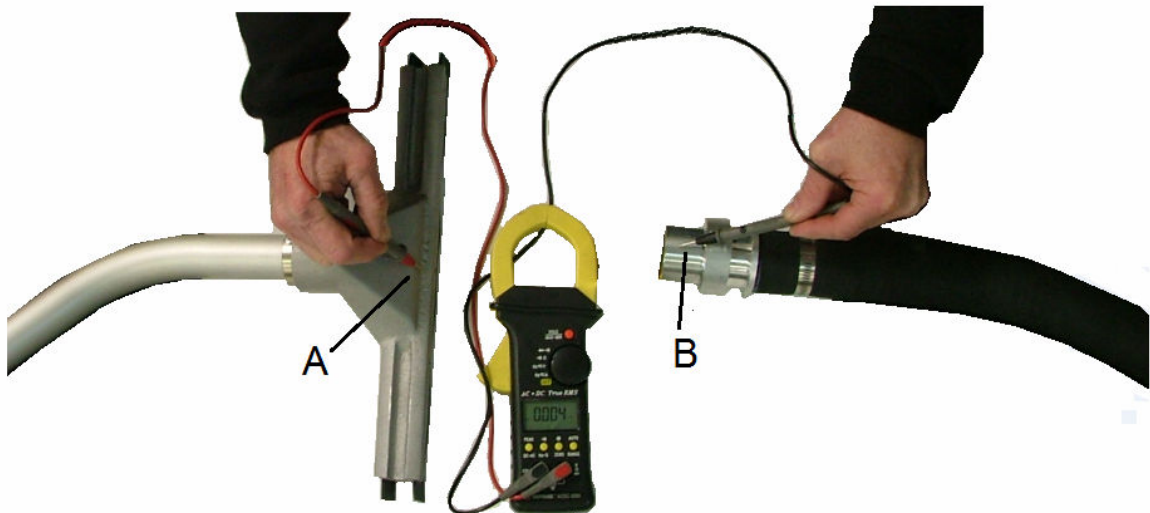


- 3) **Insert tool into hose** far enough to make contact with the embedded contact. Be sure that clamp is directly over embedded contact. Securely tighten hose clamp.



## Testing Continuity

Have a qualified electrician use an Ohm meter to test continuity. Place one probe on the coupler end (B) of the hose and the other probe on the far end (A) of the attachment accessory. A properly grounded hose connection will read less than 20 Ohms. Recheck connections if your readings exceed this measurement.

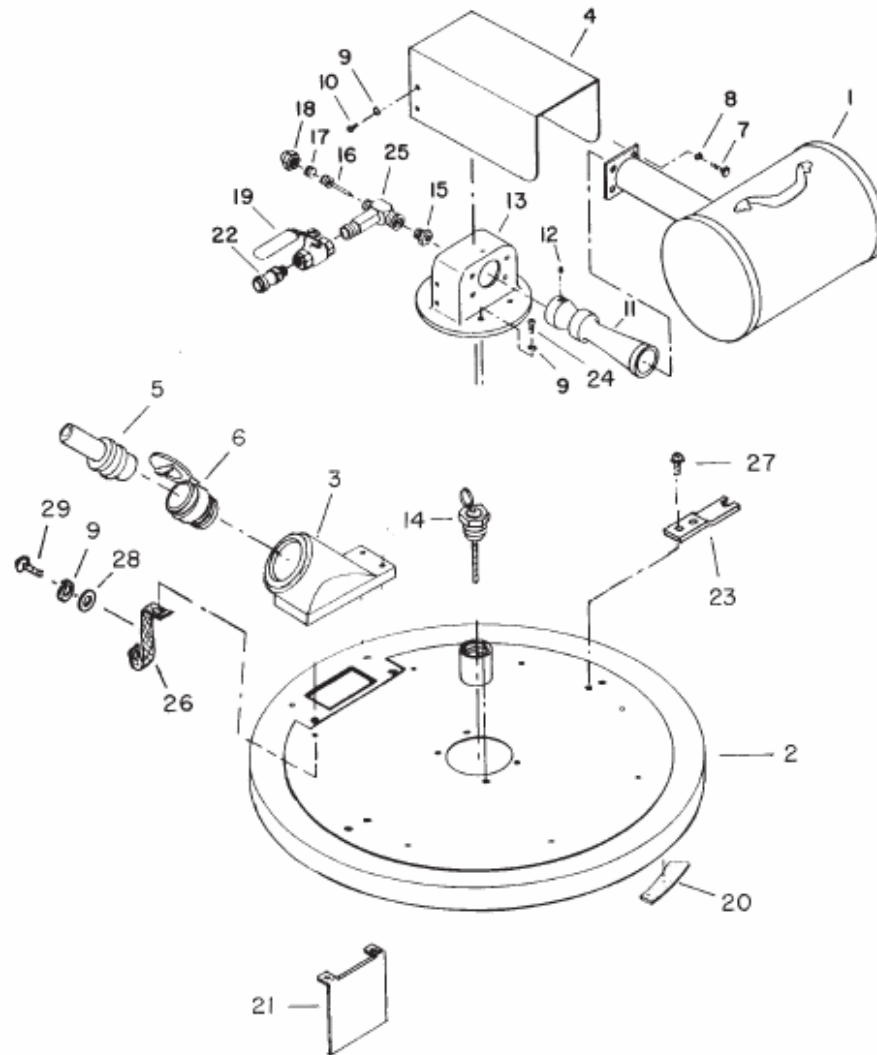


**IMPORTANT** – If the continuity test fails, **DO NOT USE** the vacuum for flammable liquid recovery. End to end continuity is critical to safety when handling flammable liquids.

If the continuity test fails, recheck connections and test again. If the continuity test continues to fail, contact your Desco representative for technical assistance.

## Schematics

### Vacuum Power Head

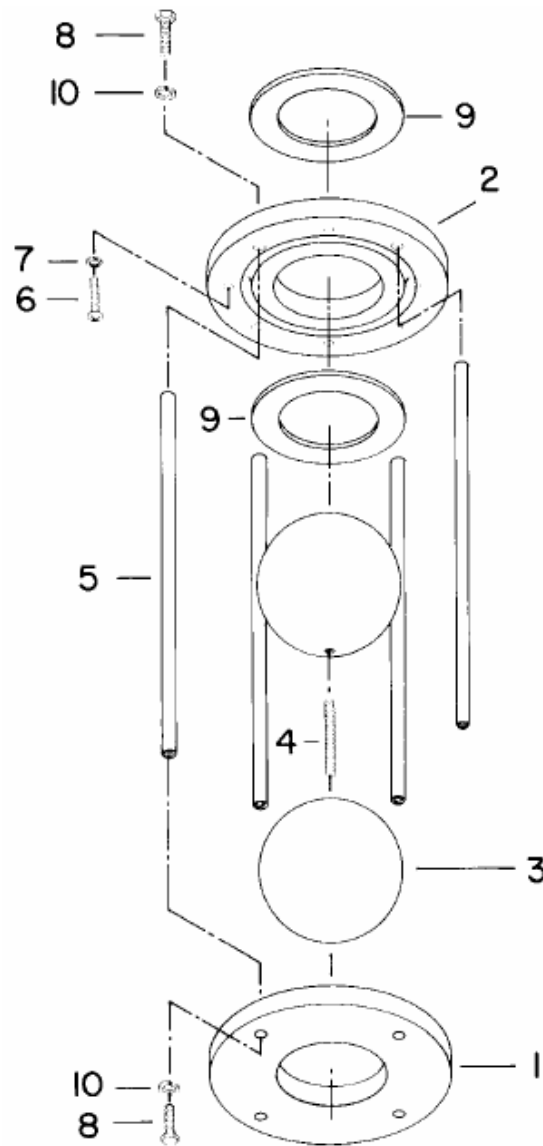


Ref	Part	Description
1	340.701033	Muffler/flame arrester
2	340.7910001	Lid sub assy
3	340.7910005	Intake Assy complete
4	340.760998	Cover
5	340.7910018	Inlet hose assy
6	340.7910006	Intake valve
7	340.711229	Blt-HH 5/16-18 x .87 STPL
8	340.711545	WSR-Helical 5/16
9	340.711542	WSR-Helical #10
10	340.710353	SCR-MC 10-32 x .37 STPL
11	340.701006MCH	Venturi horn
12	340.711005	SCR-SK 1/4-20 x .31
13	340.701005MCH	HSG, air vac mch
14	340.7910010	Relief valve
15	340.701029	Orifice, hex

Ref	Part	Description
16	340.750641	Needle assy
17	340.711010	Scr-SK 3/8-24 x .25
18	340.711357	Nut-acorn 5/8-11 STPL
19	340.701009	Valve, .50
20	340.791025	Lid gasket buna-N
21	340.760159	Splash guard
22	340.701010	Coupler, male .50
23	340.7910009	Latch plate lid assy
24	340.710356	SCR-MC 10-32 x .62 STPL
25	340.701007	Assy, air inlet
26	340.701204	Wire, braided grnd strap
27	340.711109	SCR-ST-A 12 x .50 PL
28	340.711503	WSR-Flat #10
29	340.710352	SCR-MC 10-32 x .25 STPL
**	340.7910000	Lid assy complete

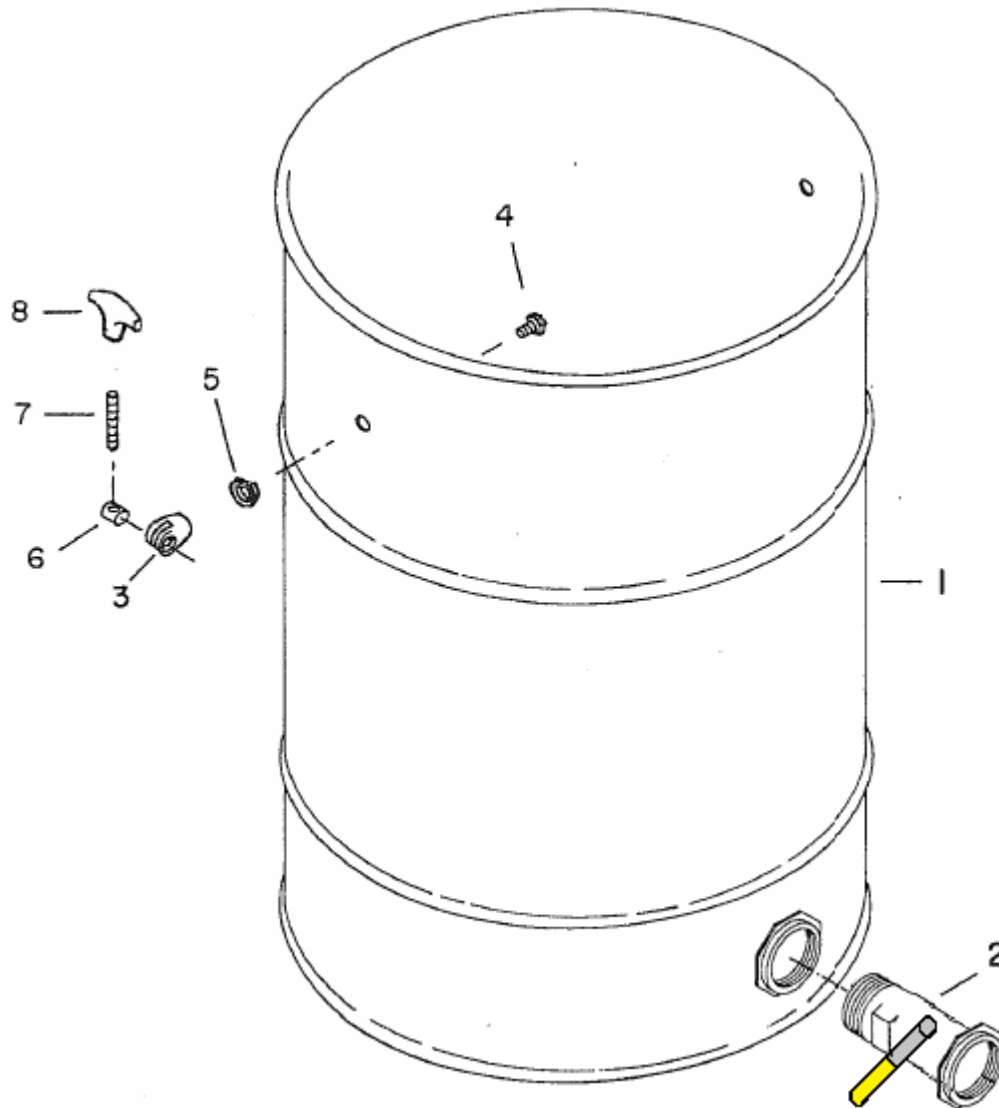


## Liquid Shut-off/Float Ball Assy



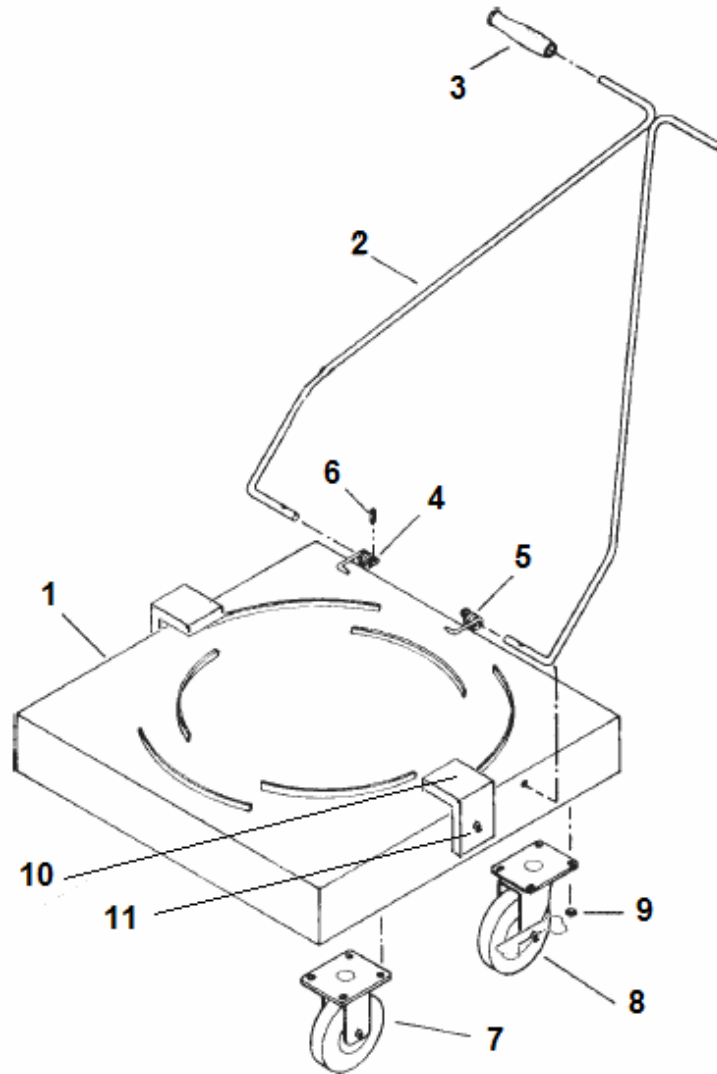
Item	Part	Qty	Description
1	340.701041	1	Plate, end cap water shut
2	340.701042	1	Plate, end cap water shut
3	340.701016	2	Ball, float 4 dia.
4	340.701013	1	Stud
5	340.701012	4	Rod, spacer
6	340.701359	2	SCR-MC 10-32 x .87 SS
7	340.711543	2	WSR, Helical Spr LOC #10
8	340.711203	8	BLT, HH 1/4-20 x .62
9	340.701015	2	Gasket, 2.25 x 3.50 x .12
10	340.711544	8	WSR, Helical SPR LOC 1/4
--	340.515003	--	Float assy. complete

## 55 Gallon Drum Assembly Schematic



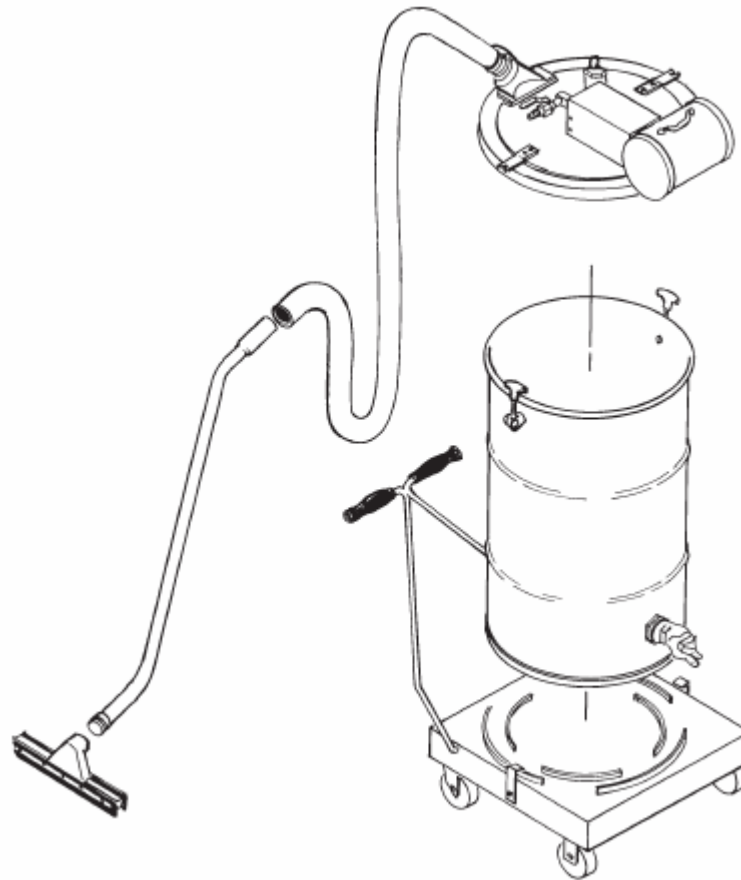
Item	Part Number	Qty	Description
1	340.7910012	1	Drum 55 gal
2	340.7910017	1	Dump valve, 2" ball valve, stainless steel
3	340.130071PLT	2	Cam, chrome plated
4	340.712089	2	BLT HH 1/2" x 13 5/8
5	340.711556	2	WSR-Internal lock, 1/2
6	340.130073PLT	2	Pin, cam plated
7	340.712033	2	Stud, 3/8-16 x 4.00 ST
8	340.130015	2	Handle, tee
9	340.722508	2	WSR-Flat .44 x 1.00 x .06
***	340.7910011	1	Drum assy complete


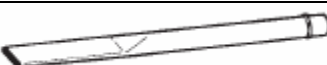


## Flammable Liquid Dolly Cart Schematic (340.7910013)



Item	Part Number	Qty	Description
1	340.750045	1	Weldment dolly 55
2	340.900051	1	Weldment, handle
3	340.900052	2	Grip, handle
4	340.900080	1	Spring, torsion RH
5	340.900081	1	Spring, LH
6	340.711642	2	Rollpin
7	340.7910015	2	Castor, rigid 5", conductive
8	340.7910014	2	Castor, swivel 5", conductive, w/brake
9	340.711379	16	Nut-Flanged Wizz 5/16-18 ST PL
10	340.7910016	2	Bracket, drum loc
11	340.712083	2	Bolt, flanged, wiz loc, 3/8 - 16
***	340.7910013		Dolly cart complete

## Tools and Accessories



	Part	Description
<b>A</b>	 340.7910019	Hose nitrile 1.5 x 25 comp.
<b>B</b>	 340.800034	24" crev tool aluminum comp
<b>C</b>	 340.800267	Exp-proof wand assy, 1-1/2 comp
<b>D</b>	 340.7910022 340.712516 340.800121 340.800178MCH 340.7910023 340.7910024	Squeege total Buna-N Comp SCR-SC 8/32 x .62 SS 14" retaining strip Casting Blade Buna-N, wide Blade Buna-N, narrow